

# Fire Engineering

## TACTICAL BUILDING BLOCKS SERIES

### Personal Harness Use

Sponsored by:



### Firefighter Removals

## HORIZONTAL DRAGS – TWO FIREFIGHTERS



#### Situations for use:

- ✓ Extensive removal distance

- ✓ Extensive removal distance
- ✓ Large-size downed firefighter

**Webbing or rope can be used for drag**

**Distributes weight between both rescuers**

**Two Drag Options:**

- ✓ Simultaneous
- ✓ Alternating



## **FIREFIGHTER STAIR REMOVAL**



**Stairwell removals create a difficult upward climb because of:**

- ✓ Rescuer fatigue
- ✓ Steepness/turns
- ✓ Awkward positions
- ✓ Stairwell instability

**Focus on torso of body**

**Top Rescuer**

- ✓ Attach pompier hook to firefighter's SCBA strap
- ✓ Vertical lift
- ✓ Handles on pompier hooks or harness straps

**Bottom Rescuer**

- ✓ Uses harness straps as lifting handles



# VERTICAL LIFT



**Used for subfloor removals as a last resort**

## **Method 1: Rope Bight**

- ✓ Double rope in half
- ✓ Middle of rope clips into firefighter pompier hook

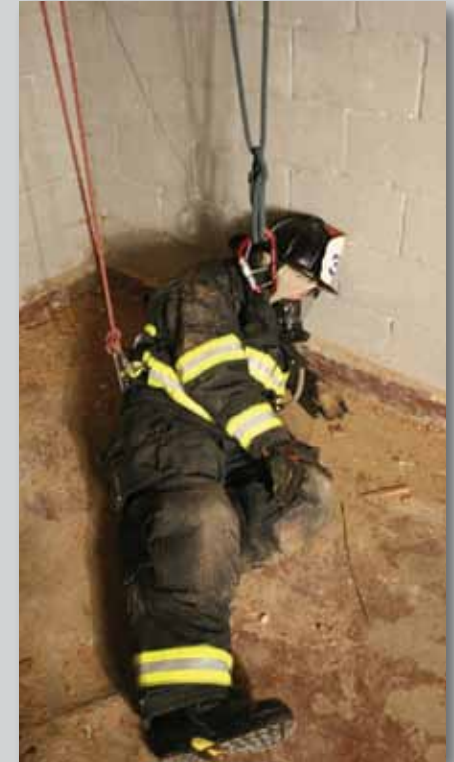
## **Method 2: Double Handcuff Knot**

Two attachments

- ✓ Upper front
- ✓ Lower rear

Lower rear attachment can be double handcuff or Figure 8 on bight can be used along with carabiners

**Both methods provide option for two or four removal lines**



# VERTICAL LOWER

**Upper-Floor Removal Option**





## Ladder high point method incorporating personal harness

### Equipment Required

- ✓ Life safety rope
- ✓ Ground ladder

Ladder is used as a high point anchor and a friction device

Downed firefighter attachment is harness pompiers hook through coat

- ✓ Prevents inversion



For more information on Personal Harness Use, go to Training Minutes or Daniel DiRenzo's article on Personal Harness Use in *Fire Engineering*, both at [FireEngineering.com](http://FireEngineering.com). Special thanks to Safety & Survival Training, LLC, and the Collingswood (NJ) Fire Department.

**Fire Engineering**<sup>®</sup>

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